

ARAC ESHWG REPORT 25.1351(b)

1 - What is underlying safety issue addressed by the FAR/JAR?

The FAR/JAR give requirements relating to electrical generating system power sources, distribution busses and cables, and associated control, regulation and protection devices.

2 - What are the current FAR and JAR standards?

Current FAR text:

Section 25.1351 General

- (b) Generating system. The generating system includes electrical power sources, main power busses, transmission cables, and associated control, regulation, and protective devices. It must be designed so that -
 - (5) There are means accessible, in flight, to appropriate crew members for the individual and collective disconnection of the electrical power sources from the system.

Current JAR text:

JAR 25.1351 General

- (b) Generating system. The generating system includes electrical power sources, main power busses, transmission cables, and associated control, regulation, and protective devices. It must be designed so that -
 - (5) There are means accessible where necessary, in flight, to appropriate crew members for the individual and rapid disconnection of each electrical power source (see ACJ 25.1351(b)(5));

3 - What are the differences in the standards and what do these differences result in?

JAR 25.1351(b)(5), with its related ACJ 25.1351(b)(5), provide different accessibility requirements for means to disconnect power sources from the electrical system. FAR 25.1351(b)(5) requires means that are accessible in flight for individual and collective disconnection of all power sources. JAR 25.1351(b)(5) specifies "individual and rapid disconnection" instead of "individual and collective disconnection" and allows for flexibility by use of the words "where necessary".

4 - What, if any, are the differences in the means of compliance?

The JAR has a specific ACJ to cover the means for disconnecting power sources from the electrical system.

5 - What is the proposed action?

The proposed action is to adopt JAR 25.1351(b)(5) and associated ACJ. This allows for a greater flexibility for appropriate action to be taken, and removes the implication that a single means for disconnection of all electrical power sources is required. This is also in line with current design practices.